

### **REMARKS/ARGUMENTS**

Applicants have received and carefully reviewed the Office Action mailed April 16, 2010, in which claims 1-22, 25-57, 59-70 and 73-78 are pending, claims 28-56 are withdrawn from consideration, claims 1-22, 25-27, 57, 59-70 and 73-78 are rejected. Applicants respectfully traverse all adverse assertions and rejections presented in the Office Action. With this paper, independent claims 1, 57, and 73-75 have been amended. Reconsideration, further examination, and withdrawal of the rejections are respectfully requested.

#### **Claim Amendments**

Without conceding the correctness of the rejections presented in the Office Action, independent claims 1, 57, and 73-75 have been amended to clarify certain claim limitations. Support for the amendments may be found, for example, in paragraph [0032] of the published application. No new matter has been introduced. Favorable consideration is respectfully requested.

#### **Claim Rejections Under 35 U.S.C. § 103**

Claims 1-9, 11, 13, 15, 16, 18-21, 25-26, 57, 59, 61, 63-64, 66-68, 73, 76, and 77 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Ren et al.*, U.S. Patent 6,045,547 (hereinafter “Ren”), in view of *Viera*, U.S. Patent 6,039,699. Applicants respectfully traverse this rejection.

The Office Action cites MPEP 2113 in rejecting independent claim 1. Applicants acknowledge that claim 1 is indeed a product by process claim, and that “determination of patentability is based on the product itself”. The Office Action asserts that the combination of Ren and Viera renders the product of claim 1 obvious. Applicants respectfully disagree.

Ren and Viera, alone or in combination, do not appear to teach or suggest co-extruding or co-drawing metallic materials to form a metallic composite elongate shaft as a unitary construction. As discussed in the response dated March 25, 2010, there are differences in the process for extruding polymers and metals. The Examiner appears to contend that the differences are irrelevant to patentability of the claims. Applicants disagree, and respectfully point out that MPEP 2113 also states:

“The structure implied by the process steps should be considered when assessing the patentability of product-by-process claims over the prior art, especially where the product can only be defined by the process steps by which the product is made, or where the manufacturing process steps would be expected to impart distinctive structural characteristics to the final product. See, e.g., *In re Garnero*, 412 F.2d 276, 279, 162 USPQ 221, 223 (CCPA 1979)”.

Applicants submit that the Examiner appears to have improperly failed to consider the distinctive structural characteristics imparted upon the metallic materials by the co-extruding or co-drawing process. One of ordinary skill in the art will recognize that extruded metal possesses a different physical structure than, for example, machined or cast metal. When extruded, the solid metallic material “flows” longitudinally, and the grains are re-arranged into an elongated structure. The flow pattern influences the quality and mechanical properties of the finished product. Improper metal flow can produce various defects such as surface cracking or tearing, pipe, and internal cracking. Therefore, the extrusion process affects the structural characteristics of the material in a way that is best described by the process itself, similar to, for example, the heat treating process of annealing. While a detailed metallurgical description of the effects of the process exists, one of ordinary skill in the art does not require such a description to understand the structural characteristics produced by the process. Accordingly, the claim limitations “co-extruding or co-drawing” must be given patentable consideration. Neither Ren nor Viera discloses co-extruding or co-drawing metallic materials, or the physical changes that would result therefrom.

In the Response to Arguments of the Office Action, “the Examiner takes the position that a product formed by co-extruding the layers together is taught by Ren and Viera suggests specific alternative materials such as metals.” However, Ren does not appear to teach metal processing techniques, and while Viera does appear to teach a metal guidewire, Viera does not appear to teach that the guidewire is co-extruded or co-drawn. In fact, the disclosure of a plurality of assembly methods (see column 4, lines 26-29) appear to expressly discount such a construction. Furthermore, Viera does not appear to disclose, expressly or inherently, that the individual metallic components (which are assembled together to form the multi-layer guidewire) are extruded or drawn, and therefore does not appear to disclose the metal

processing techniques claimed. Furthermore, one of ordinary skill in the art will recognize that the polymer processing techniques of Ren would not produce the same structural characteristics in a polymer that co-extruding or co-drawing does in a metal, since the physical structure of a polymer and a metal are implicitly different.

For at least the reasons discussed above, all elements of independent claim 1 are not believed to be taught or suggested by Ren and Viera, as is required to establish a *prima facie* rejection. Therefore, claim 1 is believed to be patentable over the cited references.

Independent claims 57 and 73 each require, in part, a first metallic material co-drawn or co-extruded about a second metallic material, the materials being formed together as one unitary construction in claim 57, and forming a unitary metallic composite elongate shaft in claim 73. As discussed above with respect to claim 1, the process of co-extruding or co-drawing metal alters the structural characteristics of the material, and must therefore be afforded patentable consideration as a structural modification of the recited materials. Ren and Viera, alone or in combination, do not appear to teach co-drawing or co-extruding a metallic material. Therefore, the cited references do not appear to teach or suggest all of the elements of independent claims 57 and 73, as is required to establish a *prima facie* rejection. Accordingly, claims 57 and 73 are believed to be patentable over the cited references.

For at least the reasons discussed above, Applicants submit that independent claims 1, 57 and 73 are patentable over the cited references. Since claims 2--9, 11, 13, 15, 16, 18-21, 25-26, 59, 61, 63-64, 66-68, 76, and 77 depend from one of the independent claims and contain additional elements, these claims are submitted to be in condition for allowance as well. Applicants respectfully request that the rejection be withdrawn.

Claims 12, 17, 60 and 65 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ren and Viera as applied to claims 1 and 57 above, and further in view of O'Brien et al., WO 99/58184. Claims 14 and 62 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ren and Viera as applied to claims 1 and 57 above, and further in view of Rooney, U.S. Patent 6,306,105.

As discussed above, independent claims 1 and 57 are believed to be patentable over Ren and Viera. O'Brien et al. and Rooney do not appear to remedy the shortcomings of Ren

and Viera with respect to claim 1 and 57. Therefore, claims 1 and 57 are believed to be patentable over the cited combinations. Since claims 12, 14, 17, 60, 62, and 65 depend from one of claims 1 and 57 and contain additional elements, Applicants submit that these claims are also patentable over the cited references. Withdrawal of the rejections is respectfully requested.

Claims 74, 75, and 78 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ren and Viera as applied to claim 1 above, and further in view of Jones et al., U.S. Patent 5,843,050. Applicants respectfully traverse these rejections.

Independent claims 74 and 75 each require, in part, a first metallic material co-drawn or co-extruded about a second metallic material, the materials being formed together as one unitary construction in claim 74, and forming a unitary metallic composite elongate shaft in claim 75. As discussed above with respect to claim 1, the process of co-extruding or co-drawing metal alters the structural characteristics of the material, and must therefore be afforded patentable consideration as a structural modification of the recited materials. Ren and Viera, alone or in combination, do not appear to teach co-drawing or co-extruding a metallic material.

Therefore, the cited references do not appear to teach or suggest all of the elements of independent claims 74 and 75, as is required to establish a *prima facie* rejection. Jones et al. do not appear to remedy the shortcomings of Ren and Viera with respect to independent claims 1, 74, and 75. Accordingly, claims 1, 74, and 75 are believed to be patentable over the cited references. Since claim 78 depends from claim 1 and adds additional elements, claim 78 is also believed to be patentable over the cited references. Withdrawal of the rejection is respectfully requested.

### **Conclusion**

Further examination and reconsideration are respectfully requested. It is respectfully submitted that the claims are now in condition for allowance, and issuance of a Notice of

Allowance in due course is requested. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

Respectfully submitted,  
STEVEN E. WALAK

By his attorney,

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